50 Los Alamos NATIONAL LABORATORY 1943 - 1993

Newsbulletin

The newsweekly for Laboratory employees and retirees

Lab to lead Department of Energy effort for accelerator production of tritium

The Laboratory will lead development of accelerator production of tritium, or APT, a technology that will help assure a new tritium supply for U.S. nuclear weapons, Energy Secretary Hazel O'Leary announced Tuesday.

O'Leary said in a news release the Department of Energy will pursue a dual track as its preferred alternative for tritium production: either construction of an accelerator-based system at Savannah River Site, near Aiken, S.C.; or conversion of a commercial reactor or purchase of commercial irradiation services.

After three years of engineering and demonstrations of the two alternatives, the DOE will select one technology track, the news release said. The DOE plans to develop the technology selected at that time so that it can produce tritium within 10 to 15 years, while the other technology will be developed through detailed design and used as a backup option.

"We're pleased that Secretary O'Leary has endorsed the hard work of researchers at Los Alamos, the other national laboratories and private contractors who have proven APT's viability," said Laboratory Director Sig Hecker. "We look forward to working with the Savannah River Site to make APT a reality and meet the nation's security requirements."

Scientists at Los Alamos, Brookhaven and Sandia national laboratories have worked on APT for the past seven years. APT has significant safety and environmental advantages over reactor production of tritium, said Paul Lisowski, Los Alamos project leader for APT.

"Using an accelerator system to produce tritium is as environmentally clean and safe a choice as possible," Lisowski said. "Accelerator-based systems use well-developed technology, have acceptable costs and produce minimal environmental impact."

Unlike reactors, accelerators don't use fissile nuclear materials in the production of tritium, completely eliminating any chance of a criticality accident and avoiding the generation of high-level nuclear waste.

Tritium increases the explosive power of nuclear weapons. The United States requires a new tritium supply to maintain its smaller, post-Cold War stockpile of nuclear weapons. Until 1988, tritium came from dedicated DOE production reactors, and current requirements are being met by recovering tritium from dismantled weapons.

But tritium is radioactive and decays rapidly — at about 5.5 percent a year — so a new tritium

continued on Page 5

Lab researchers say lasers can have a chilling effect

Most people think of lasers as producing blindingly bright beams of light that can vaporize anything. But Los Alamos scientists have shown that under the right conditions this searing radiation can actually cool solid objects.

In a paper published in the Oct. 12 Nature magazine, the researchers report experiments that show "optical refrigeration" not only is possible, but efficient enough that it someday could provide reliable cooling for electronics in outer space, ultrafast computer circuits and a host of other uses.

Since the 1920s, scientists have theorized that bright light should be able to chill objects.

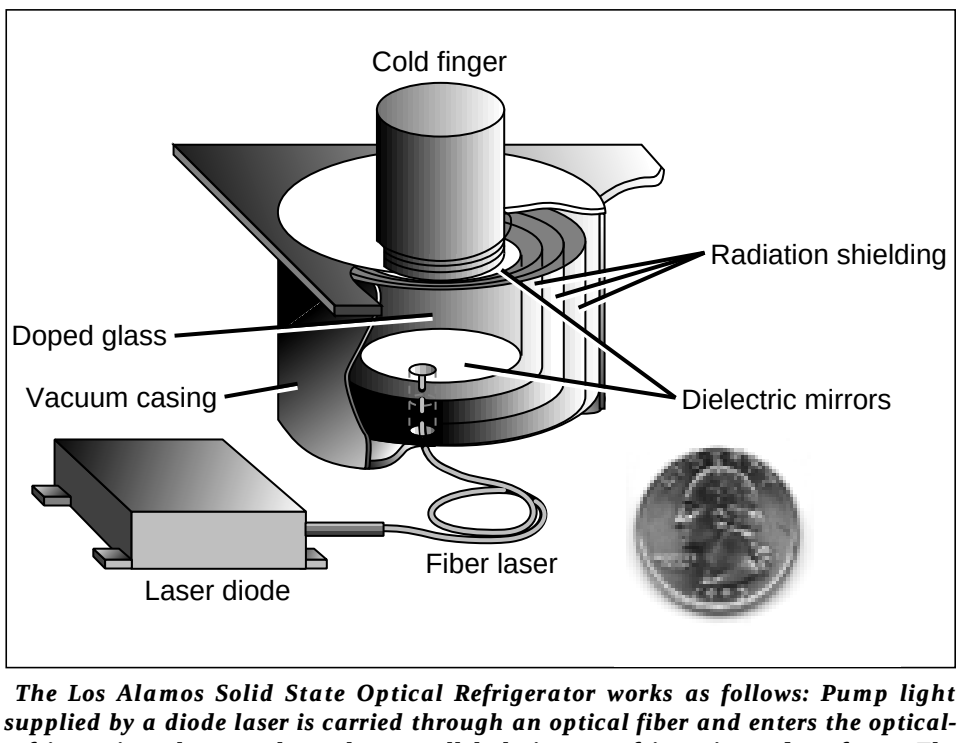
When light hits a solid object it usually deposits energy or heat. But under some circumstances, light can absorb energy from microscopic thermal vibrations in the solid and thus decrease the object's temperature. If an object excited by radiation at one frequency can be made to emit radiation at higher frequencies, which carry more energy, the object cools.

"You can think of the principle here as something like cooling an object by 'washing' it with 'cool' light," explained Richard Epstein of Astrophysics and Radiation Measurements (NIS-2), who heads the research team. "Light pours into the object, soaks up some of the vibrational or heat energy of the object, then carries away the excess energy."

In previous experiments, heating always far exceeded cooling. But by using a tunable laser and modern fiber-optic materials, the Los Alamos researchers managed to suppress the usual heating and make optical cooling dramatically apparent.

"Nature wants to produce heat, but we've discovered how to use laser light to excite an object to special quantum states in which it can trap thermal vibrations but can't create them," Epstein explained. "Essentially, we tune the laser to outsmart the normal tendency to produce heat."

continued on Page 5



The Los Alamos Solid State Optical Refrigerator works as follows: Pump light supplied by a diode laser is carried through an optical fiber and enters the optical-refrigeration element through a small hole in one of its mirrored surfaces. The mirrors trap the light in the element until it is absorbed and then re-emitted at higher energies. The optical-refrigeration element cools, and the higher-energy light escapes and is absorbed by walls of the vacuum casing. Radiation shields that transmit the higher-energy light but block thermal radiation from the vacuum casing keep the element cool through an "inverse greenhouse effect." The object to be cooled is attached to a cold finger connected to the element. *Graphic by Edwin Vigil of Public Information (PA-1) and Brad Edwards of Astrophysics and Radiation Measurements (NIS-2)*

Newsbulletin
Mail Stop C318
Los Alamos, NM 87545

Nonprofit Organization
U.S. Postage Paid
Los Alamos, NM
Permit No. 107

INSIDE THIS ISSUE

The Inside Story

by Sig Hecker

Workforce productivity update

During the past month some people have chosen to redefine the objectives of our Workforce Productivity Project. I want to set the record straight and reiterate the principal objectives, as well as comment on where we go from here.

Let me first state that this really is all about increasing our scientific productivity! It's not primarily a reaction to a budget shortfall. It's not, as some would have you believe, about just singling out our support personnel or about disenfranchising any segment of our employees or our local communities.

All around us in this country we witness intense efforts to reengineer organizations to increase productivity. Over the past year we have talked to many people representing a broad cross section of organizations. Industrial organizations have a wealth of experience. Governmental organizations are off to a slow start but the intensity is mounting. Even universities have begun the process of reengineering to increase productivity in education and research. The driving forces for each are different. Industry can articulate the driving force most clearly because most companies have faced a crisis — increase productivity or go out of business. They say there is nothing like the sight of the gallows to concentrate the mind.

Governmental organizations have been pressured over the past two years by the Clinton administration's "reinventing government" focus and by the intense cost-cutting pressures faced in Congress. However, the driving forces are typically not as clearly defined as those in industry. Few governmental organizations ever go out of business although Congress has threatened to abolish some agencies, including the Department of Energy. A variety of studies has pointed out gross inefficiencies in government, prompting some serious responses from the government.

One of the most influential studies was conducted on the DOE laboratories by the Galvin Task Force. Following up on the Task Force, Bob Galvin recently summarized the problem rather succinctly in the fall 1995 "Issues in Science and Technology." He wrote, "Mircomanagement, oppressive oversight, compounding regulations, contradictory directives, audits upon audits, layers of bureaucracy, and isolated 'stovepipes' of authority are suffocating the labs. The result is excessive overhead, poor morale and gross inefficiencies." Mr. Galvin has told Congress that the scientific productivity at the laboratories could be increased by 20 to 50 percent.

That sounds pretty serious to me. Secretary O'Leary also has taken this seriously. She committed to an overhead reduction of $1.7 billion at DOE and another $1.4 billion at the laboratories over five years. I don't know about you, but I certainly feel the heat. We decided to take bold action with our Workforce Productivity Project. We are not alone. Last week I had the opportunity to compare notes with three other DOE laboratory director colleagues. The actions taken at the Lawrence Berkeley National Laboratory, the Pacific Northwest Laboratory and the National Renewable Energy Laboratory are very similar to ours.

Nevertheless, numerous people question our actions and our motives. They wonder what the crisis is. We are, indeed, not about to go out of business. Our crisis is more subtle but, nevertheless, just as serious. I believe that unless we follow through with our productivity project, we will go out of business as a world-class scientific institution. All that may survive is a "Jiffy Lube" for nuclear weapons, rather than a great scientific laboratory that can live up to the challenge of science-based stockpile stewardship and one that can serve the nation with distinction in other critical areas.

Our crisis more closely resembles that of universities. In early September, I had the opportunity to compare notes with Charles Vest, president of the Massachusetts Institute of Technology. He is reengineering MIT to take $40 million out of the overhead and administration of MIT because he believes that he has to demonstrate that universities can be more cost effective and productive. MIT does not face a crisis of going out of business. What concerns Charles Vest is the danger of "drifting toward mediocrity" and how this will impact the nation's security and well-being.

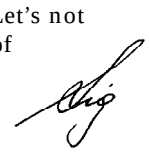
In the short term, my greatest concerns are internal to the Laboratory. Years of relentless administrative pressures, so graphically described by Mr. Galvin, have increased our overhead to alarming proportions. We have had to place too many people into support positions to keep the doors open. Our costs have increased to unacceptable levels for many of our customers. We lost the balance between science and support. We dealt with budgetary shortfalls by reducing the scientific and technical staff too quickly and too deeply. Consequently, morale suffered and we were in serious danger of losing our best and in "drifting toward mediocrity." This is why we moved so swiftly and so aggressively with the Workforce Productivity Project. I did not want to face another budget cycle by cutting into the scientific heart and soul of the Laboratory.

So, what the Workforce Productivity Project is all about is saving and renewing this great institution of ours. We have a compelling national mission — helping to reduce the global nuclear danger. This mission is firmly grounded in science and technology, and we will use its capabilities selectively to contribute to other important national problems. To be cost effective, we will not only strive for the best scientific and technical workforce but also for world-class professionals to carry out the necessary support functions.

However, we will have to do the job with fewer people while still safeguarding the health and safety of our workers and the public, and while being environmentally responsible in the process. I want the Laboratory to be the employer of choice for the best scientific and professional personnel, and employees will be attracted and retained based on their skills and their performance. Our workforce will be excellent. It also will be diverse because that is the only way to attract the finest talent in the world to solve the tough problems ahead of us. If we accomplish all of this, then the Laboratory still will be an engine for economic growth and development for New Mexico, offering high-quality, high-paying jobs in northern New Mexico.

During the first phase of the productivity project we focused on increasing the ratio of people contributing directly to science and technology compared to people supporting them from 0.94-to-1 to 1.1-to-1 as one step toward increased scientific productivity. During the next phase we will move carefully but deliberately toward a ratio of 1.3-to-1, while concurrently working on other measures of productivity. It is clear that we will have to reengineer many of our work processes and work closely with the DOE to take redundant work out of the system. We will have to monitor closely how our scientists, engineers and technicians spend their time to make certain that their administrative burden is also decreased. We currently are working to define how to accomplish all of this. I will keep you informed.

Let me end by reminding you what Richard Rhodes, the Pulitzer Prize-winning author of the "Making of the Atomic Bomb" said to a Los Alamos audience during the 50th anniversary celebration of the founding of our Laboratory: "I believe the world owes you, and those of your colleagues who are gone now and no longer among us, an immense debt of gratitude. … You saved civilization." We should settle for nothing less over the next 50 years. Let's do what's best for our Laboratory and for the nation. Let's not hang on so desperately to the past and refuse to change. Let's not divide our Laboratory and the community in the pursuit of self-interest. I ask for your full support and participation. It's time to unite and strengthen the foundation for the Laboratory to remain a world leader for science and technology.



Laboratory pioneer wins Nobel Prize for physics

Laboratory pioneer Frederick Reines, physics professor emeritus at the University of California, Irvine, joined another elite group this week. He became a Nobel Prize-winning physicist.

Reines, who joined the Laboratory in 1944, was honored by the Royal Swedish Academy of Sciences for his work at Los Alamos in the 1950s with the late Clyde Cowan on detecting the first neutrino, a particle without charge and with vanishingly small mass.

Reines and Cowan said they first observed the neutrino in the spring of 1953 when they set up a large and rather novel liquid scintillation system as a sensitive detector for the tiny particle near an atomic production reactor at the Hanford, Wash., plant. Although the evidence obtained at Hanford pointed to the existence of the neutrino as a particle in the free state, the experiment was not entirely conclusive.

The physicists returned to Los Alamos and devised a more complex detecting system to better select the neutrino signals from confusing background caused by radioactivity and cosmic rays. In 1956, after conducting research at the Savannah River plant with the help of a group of scientists that included Los Alamos researchers Austin McGuire, Francis Harrison and Harold Kruse, Reines and Cowan announced that they had collected experimental evidence for the existence of the free neutrino.

Twenty years before, Nobel laureates Enrico Fermi and Wolfgang Pauli theorized on the existence of such a particle in order to account for the mysterious disappearance of energy from a radioactive process known as beta decay. Scientists still are debating whether a neutrino has mass.

While at the Los Alamos, Reines worked in the Theoretical (T) and Physics (P) divisions.

Sharing in the Nobel Prize for physics is Martin L. Perl of Stanford University. Perl, also honored for his work with subatomic particles, discovered the tau lepton particle, a heavier cousin of the electron. The tau is highly unstable and decays into other particles in less than a trillionth of a second.

OPEN ENDED

The Newsbulletin editorial section encourages dialogue among Laboratory employees. It is open to all Laboratory employees and retirees.

The section includes letters to the editor, guest editorials, questions and answers, the Inside Story, and corrections and clarifications.

Letters to the editor and guest editorials must address Laboratory policies and practices and be relevant to a broad segment of employees and retirees. Relevancy will be determined by the editor. They will be published on a space-available basis and edited for clarity, timeliness, length and Newsbulletin style.

Send letters to the editor to Newsbulletin/ Letters to the Editor, Mail Stop C318. Letters must be signed and include the author's middle initial, group affiliation and telephone number. Letters should be no longer than two pages of double-spaced text. Authors' names will be published.

Send questions to Newsbulletin/Q&A, Mail Stop C318. Questions must be submitted with the writer's name and telephone number. The writer's identity will not be published. Or send letters and questions to *newsbulletin@lanl.gov* by electronic mail.

Employees or retirees who want to suggest an idea for a guest editorial should call the Newsbulletin editor at 5-9198.

If you have questions about the Newsbulletin's editorial policy, call 7-6103.

CLARIFICATION

• Looking for the current name of the NIS-8 group? The group's new name is Nonproliferation and International Technology. In an article on the 1994 Distinguished Performance Award winners in last week's Newsbulletin, NIS-8 was identified as Research and Production Technologies. As of press time this week, the name change had not made it to the Lab's online directory.

The Newsbulletin is published Fridays by Public Information (PA-1). The staff can be reached at Mail Stop C318, fax 5-5552, or stop by the office at TA-3, SM-100. The Newsbulletin office telephone number is 7-6103. Individual telephone numbers are listed below:

Editor:
Kathy Haq, 5-9198

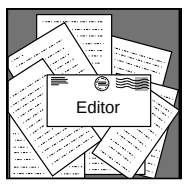
Managing editor:
Jacqueline Paris-Chitanvis, 5-7779

Production coordinator:
Denise Bjarke, 7-6103

Illustrator:
Edwin Vigil, 5-9205

Los Alamos National Laboratory is an Affirmative Action/Equal Opportunity employer. It is operated by the University of California for the U.S. Department of Energy.

Printed on recycled paper



Lab policies online

With the continuing debate in the media over which personnel policies, especially the grievance policy, that the Laboratory ought to be using, I think it might be useful for those affected, the Los Alamos staff, to know where to find the respective policies. To find Los Alamos policy from the LANL home page on the Web, click on the following in the respective order: "Inside LANL," "Human Resources," "General Information," "Policies and Procedures Manual."

Note that you must have a lanl.gov address to access the manual. Also, the online manual is in Adobe Acrobat format. If your computer is not set up for this, use the ones in the Study Center. The manual also is available at group offices, the Study Center or the Reading Room.

The current Department of Energy/University of California contract is online in the same area. See Appendix A for the personnel agreement. To find the UC personnel manuals from the LANL home page on the Web, click on the following: "UC," "University Management Oversight," "University of California," "Universitywide Information Services," "Systemwide Policies and Procedures" "Staff Personnel Policies." I suggest that 280, 290 and 760 are the current policies of interest.

The policies of Lawrence Livermore and Lawrence Berkeley national laboratories are not online. I have copies of the policies from both labs if they are of interest to you. They both follow the UC policy, as the contract requires.

If any of this does not work, or you wish to chat about this, feel free to contact me at *cmechels@aol.com* via electronic mail.

—Chris Mechels, retiree, Santa Fe

Q&A

Protection of credit card numbers

***Q:** My credit card number appears on the receipts that I send to Lab Travel when I file for reimbursement. As we begin to rely on cashless transactions, what assurances do I have that the Laboratory is protecting my card number? Where do these receipts go? Are they protected? In a safe? In a locked cabinet? Are they shredded at the end of their little paper lives? Is there a substitute piece of paper I can file with my travel expense worksheet that doesn't have a credit card number on it?*

A: Even before the "cashless" environment, Laboratory Travel took precautions to ensure that proprietary information was kept confidential and in a safe place. Your travel expense worksheet and attached receipts are stored in locked Kardex files in a locked room. After a life of six years, the worksheets and receipts are burned.

Expense worksheets are considered sensitive data and are handled accordingly by Travel. However, if you still feel anxious about the disclosure of your credit card number on receipts, you may wish to eliminate this information by crossing out or otherwise omitting this information from your receipts before you submit your claim. If you have additional questions or concerns about the processing of your claim, I encourage you to contact the Claims Processing Section at 7-4314 for assistance.

—Henrietta Trujillo, team leader, Travel Provider Services (BUS-1)

Why the increase in TIG modem charges?

***Q:** Telecommunications (CIC-4) has decided that a charge of $3 an hour will soon apply to the TIG modem dial-in lines (except for the 1-800 number, which will be $7.20 an hour). Why will this service be so expensive?*

By way of comparison, commercial service providers in Santa Fe can provide this service at less than a quarter of the cost. Why can't CIC-4 use its expertise to come up with a more cost-effective solution?

A: The 5 cent a minute rate was established last June based on historical traffic of 3 million minutes per year (local and 1-800 access). It pays for one half of a tech (the full-time equivalent) and one quarter of a technical staff member FTE in CIC-4 to maintain the dial-up rotaries and TIGs. It also pays for new modems as the standards progress. Last year CIC-4 installed 48 new modems capable of 28.8 kilobits a second.

We work to get the most out of all different brands of modems. Although V.32 (14.4 kilobits a second), V.34 (28.8 kilobits a second) and V.42 (4-to-1compression) are standards, not all modems that subscribe to these standards work easily together. The result might be only 9.6 kilobits a second out of a pair of modems that have the potential of higher speeds. Call the Network Services Team at 7-7423 if you are having any trouble with modem access.

Traffic studies of the last two months indicate that there is significantly more traffic. CIC-4 will adjust the rates to accommodate the actual traffic so that there is no windfall. As a result we are able to cut that rate to 2 cents per minute ($1.20 a hour local). Access through the 1-800 numbers will be this rate plus 12 cents a minute for the FTS 1-800 cost (total of $8.40 a hour via 1-800).

Rate comparisons are available by accessing http://bang.lanl.gov/nii/access.html on the World Wide Web.

—Alyn Ford, group leader, Telecommunications (CIC-4)

Is telecommuting in the Lab's future?

***Q:** I was extremely encouraged to read Richard Johnson's letter to the editor stating that the Laboratory was considering telecommuting as a potential work option. I know that this option already is being implemented very successfully by many other organizations in this country, both public and private.*

Obviously, telecommuting would need to be "targeted" because not every type of job is conducive to such an arrangement. But many are. Currently, because my commute would amount to six hours daily, I am forced to rent a tiny efficiency, live with few amenities and be separated from my husband for two to two and a half weeks at a time. My job is one that is well-suited to a telecommuting arrangement, and not only could I be spared the cost, time and stress of having to maintain this difficult and schizophrenic existence, but the Laboratory also would gain in saved space efficiency. (Companies currently using telecommuting consistently report better productivity from employees no longer subjected to the stress of long-distance commuting and all its negative ramifications.)

Could someone from the Human Resources (HR) Division please let us know what the status of this issue is at the present time? Is there any hope of, say, initiating a pilot program in the near future?

A: Laboratory policy does currently permit working at home for certain employees in certain circumstances (see AM 326.16-.19). Such work-at-home assignments are intended to be temporary; the employee's primary work location is still the Laboratory. No consideration is being given at this time to expanding our work-at-home policy to a full-fledged telecommuting policy. Mr. Johnson's opinions were his own and not reflective of an official Laboratory position.

—Victoria B. McCabe, office leader, Policy and Communication Office (PCO)

Lab presents scholarships to New Mexico pueblos

Community Involvement and Outreach (CIO) Director Leroy Apodaca, second from right, greets the governors of Cochiti, Santa Clara and San Ildefonso pueblos while presenting them with scholarship checks during a ceremony last Friday at the University House. Ten New Mexico pueblos, eight of them from northern New Mexico, have received or soon will receive checks of $800 each as part of the Laboratory's efforts to promote education. The pueblos' leaders will act as trustees and distribute the money to deserving students within their communities. "These scholarship awards are the first of what I hope will become a very, very long tradition," said Apodaca. Pictured left to right are Santa Clara Gov. Edwin Tafoya, Cochiti Gov. Isaac Herrera, Apodaca and San Ildefonso Gov. Elmer Torres. *Photo by LeRoy N. Sanchez*

Policy revised on writing for outside publications

Revisions to the Laboratory's policy governing writing for outside publications allows an author's line manager to review the document before publication, while still allowing and encouraging academic freedom.

"There were a lot of questions about how the Lab responded when an article about a scientific paper authored by a Lab scientist appeared in the New York Times last March," said Pam French of the Laboratory Leadership Council staff. French headed a group of employees who were asked by Laboratory Director Sig Hecker to review the Lab's response to that event to learn how the Lab could respond better in the future. "There was some question as to whether the Lab should take an institutional position in such situations or whether we should allow academic and intellectual freedom to take its course," said French.

The article to which French was referring raised the possibility of a super critical explosion of nuclear materials stored underground.

French said a revision of AM 719 wasn't the purpose of the review, "but our team acknowledged early on that the existing policy was insufficient and that it was not consistenly followed throughout the Lab," she said.

The policy governing outside publications includes "professional and technical papers, articles, books and other written material related to the work of the Lab."

A major addition to the policy includes a disclaimer: "the Los Alamos National Laboratory strongly supports academic freedom and a researcher's right to publish; therefore, the Lab as an institution does not endorse the viewpoint of a publication or guarantee its technical correctness."

Other major policy changes include a section that mandates the author to submit a document prepared for publication for review by his or her manager or that manager's designee. The review should be accomplished within two weeks, and if the manager has serious concerns about the content of the document, the review period can be extended to a maximum of 30 days. The manager must notify the author of the delay in writing and clearly spell out his or her concerns with the document, according to the policy.

French said the extension provision allows time to attempt to resolve the issues causing the concern and to develop a Lab position if necessary. She explained that a clear position by the Lab is occasionally required when a research topic creates public controversy.

The revised policy also states that at the end of the 30-day review period, the document should be released back to the author who then can pursue publication "whether the issues have been satisfactorily resolved or not."

The policy also provides that authors with concerns about the review or the extension can appeal to the next higher level of management.

French said the task force strongly supports academic freedom. A rationale French's task force wrote states that the policy revision "guarantees the individual researcher the right to publish while acknowledging the institution's right to express its own and possibly different stand on a particular issue."

"The policy suggests there are circumstances in which an institutional position may be necessary and those are probably few and far between," she said. "We didn't feel it was necessary to put a complex process in place for all published papers when only a few of them would result in controversy."

Before the policy revisions were approved it was forwarded to the Lab's Science and Engineering Advisory Council (SEAC) for review. A June 19 memorandum from SEAC affirmed its support of the policy revisions. "SEAC specifically commends the strong support for academic freedom and recommends that the new policy be adopted," SEAC wrote in part.

The policy revisions aren't a form of censorship, French said. "It's exactly the opposite," she explained. "Our team strongly endorsed academic freedom … People should be allowed to publish their experimental findings regardless of the potential technical or political controversy they may cause. The Lab can't endorse the technical correctness or the viewpoint that the the writer might take in a given paper."

Added Nikki Goldman of the Human Resources (HR) Division's Policy and Communication Office, "The Lab just wants to be informed of the content before it's printed. The policy doesn't hinder publication of scientific results, but if the Lab had to develop a position, the policy would give us time to do that."

The task force went on to say in its written statement, "The goal of this policy change is to strike a balance between the rights of the individual researcher and the broad interests of the institution. The inclusion of a disclaimer in all manuscripts should make it clear to funding agencies and Congress that not every publication originating from Los Alamos National Laboratory represents the view of the institution or even the view of the majority of its employees.

"A formal procedure that ensures that members of the Lab are apprised of publications that may affect them before their release should help in responding to questions by the media. The freedom to publish has not been limited because this would ultimately be to everyone's detriment," the statement said.

In addition to French and Goldman, members of the team that reviewed AM 719 were Ed Walterscheid of the Lab's legal office, Ross Lemons director of the Materials Science and Technology (MST) Division; Klaus Lackner of Fluid Dynamics (T-3); Robert Krakowski of Systems Engineering and Integration (TSA-3); Allan Bishop of Condensed Matter and Statistical Physics (T-11); Jill Trewhella of Bioscience and Biotechnology (CST-4); Chris Morris of Subatomic Physics (P-25); David Watkins of Electronic and Electrochemical Materials and Devices (MST-11); and Jas Mercer-Smith of Nuclear Weapons Technology (NWT) Programs.

Revisions to AM 719 were effective Sept. 15. It is available at http://iosun.lanl.gov:2001/pdfs/amtext/am719.pdf online.

—Steve Sandoval

Lab extends Taos Internet support

The Laboratory will continue to provide access for Taos to the global computer Internet network until the end of the year.

Under a memorandum of understanding signed last week between the Laboratory, La Plaza Telecommunity Foundation and the Taos Center of the University of New Mexico, La Plaza will install a telecommunications line and transfer all computer user accounts to its new Internet service by Dec. 19. That will end Los Alamos assistance to the foundation, which originally was scheduled to end the last week in September.

La Plaza provides Internet access to more than 2,000 Taos-area users and has trained more than 1,000 residents in Internet use since it began the service last year under a $75,000 Small Business Innovative Research agreement with Los Alamos.

"This agreement ensures that La Plaza Telecommunity will continue to provide uninterrupted Internet service to the Taos region," said Elmer Salazar of the Laboratory's Community Involvement and Outreach office. "Our relationship with La Plaza has been of great mutual benefit and can serve as a model for similar community-based ventures."

La Plaza offers the community free access to many online services such as electronic mail, the World Wide Web, local news groups, data management, volunteer coordination and specialized training and consulting.

Since the service began, La Plaza has provided:

• information resources to more than 1,700 students at University of New Mexico, Taos, and its Learning Resources Center, and Internet-related course work to 181 UNM-Taos students.

• community educational programs and improved assistance from public service groups;

• government information leading to increased participation in local government;

• Laboratory procurement and employment information; and

• other information resources in education, health care, art, entertainment, transportation, utilities, employment, news, weather and other areas.

The Internet connection grew out of a request from the town of Taos. Under the small-business agreement, Los Alamos has provided the telecommunications line for Taos, a short-term loan of equipment and administrative and technical assistance.

—Jim Danneskiold

ETC.

Where the deer and the elk roam

As fall moves into winter and cooler weather sets in, employees are reminded to be on the lookout for migrating livestock coming down out of the mountains toward Bandelier National Monument.

In the past month, a deer and an elk have been struck by Lab personnel driving official government vehicles, said Jeff Dare of Industrial Hygiene and Safety (ESH-5).

Dare said three areas in particular where deer and elk are most often sighted include Pajarito Road east of Technical Area 18, which Dare called a wintering area for livestock; NM 4 near Technical Area 49 on the way toward Bandelier National Monument; and West Jemez Road on the Lab's western edge.

In the two incidents where animals were struck, both government vehicles, small pickup trucks, sustained more than $500 in damage. Neither driver was injured, but one of the animals was killed, said Dare.

When such accidents occur, the driver must contact Emergency Management and Response (FSS-20) at 7-6211. A report also must be filed with the Department of Energy by ESH-5 and an accident report form, which should be in all government vehicles, should be completed by the driver and submitted to the General Services Administration within 48 hours of the accident, Dare reminded.

Dare said signs are posted on roads in and around the Lab reminding people to be aware of migrating livestock.

Limit increases for Small Purchase Cards

Effective Monday, the limit for single-transaction purchases through the Small Purchase Card Program will increase to $2,500, more than double the current limit.

Ruby O'Rear of Procurement (BUS-5) said the limit increase is in response to authorized cardholders' requests for more spending flexibility. In addition, she said the range of services and commodities that can be charged with the card will be expanded to include the following:

Services — conference room rentals • short-term equipment rentals (excluding items that require in-house approval, such as copiers and fax machines) • nongovernment services administration vehicles • film processing • abstract fees • off-site food catering

Commodities — books • subscriptions (excluding membership fees) • still, television, movie and video cameras and videocassette recorders (these no longer require in-house approval)

For a complete list of the Small Purchase Card Program's expanded services or if you have questions, contact O'Rear or Jeannette Vigil at 5-4523.

SciSearch® now available at the Research Library

The Science Citation Index is one of the most widely used scientific index reference tools in the world. It covers dozens of disciplines, ranging from chemistry and engineering to physics and life sciences. Now you can access a more comprehensive reference tool online and at no cost.

SciSearch® is the database recently made available by the Research Library (CIC-14) in collaboration with Advanced Database and Information Technology (CIC-15). Lou Pray of CIC-14 said SciSearch® is part of the Library Without Walls Project's mission to deliver "information to the researchers' desktops wherever and whenever they need it.

"The best thing about SciSearch," she continued, "is that you don't have to come to the library to access it, and it indexes 1,400 more journals than Science Citation. The online system indexes more than 3,300 journals dating back to 1985. In addition, SciSearch® is updated weekly."

You need to have a web browser and a lanl.gov address in order to access it, Pray noted. To access SciSearch®, go to the Library's home page at http://lib-www.lanl.gov and select "Electronic Databases."

Pray also said SciSearch® is the first of several other databases that the library will be unveiling over the next few months as part of the ongoing Library Without Walls Project. If you have questions or comments about SciSearch®, write *library@lanl.gov* by electronic mail. If you need immediate assistance, call 7-5809.

Information Architecture requests input

The Information Architecture Project requests input on the following proposed guidelines:

• PC-5A01 through PD-5A05: Standard Desktop Software Suite (including request for help results, preliminary recommendations, and proposals for World Wide Web browsers and groupware)

These materials are available online under "Information by Subject/Information Architecture Project" http://www.lanl.gov/projects/ia/ through Gopher and the World Wide Web.

If you need an electronic mail or printed copy, please contact Tad Lane of Communication Arts/Services (CIC-1) at 7-0886 or *tad@lanl.gov* by electronic mail.

Lab researchers say lasers can have a chilling …

continued from Page 1

The experiments are the first demonstration of a new continuous-solid-state cooling process since the French watchmaker-turned-physicist Jean-Charles-Athanase Peltier discovered thermoelectric cooling in 1834.

To create laser cooling, the Los Alamos scientists shined a beam of infrared light — nearly as intense as the light at the sun's surface — at a quarter-inch-long sliver of ultrapure glass impregnated with ions of the element ytterbium.

"Ytterbium ions radiate over only a single band of frequencies that are much higher than the possible frequencies at which the glass could vibrate. Therefore, when we pump the glass with laser light at the right frequency, it is unable produce heat. That makes it ideal for this application," Epstein said.

The experiments produced a cooling power that was a few percent of the absorbed laser power: too inefficient for cooling food or homes but quite respectable for cooling high-tech devices to extremely low, or cryogenic, temperatures.

These initial experiments are a major step toward the researchers' goal of creating what they call the "Los Alamos Solid-State Optical Refrigerator," or LASSOR, which would cool electronic devices and scientific instruments to at least liquid nitrogen temperature, 77 degrees above absolute zero, and eventually lower.

Light for the LASSOR would be provided by efficient, compact, high-powered diode lasers in a device with no moving parts and weighing only a couple of pounds.

LASSORs would be ideal for space, where they could cool a wide variety of detectors and instruments mounted on satellites. Since they would be entirely solid-state devices, LASSORs would generate no vibrations and survive for years in the harsh environment of space. Within a few years, they could be used in satellites to cool infrared cameras or superconducting relays for cellular telephone calls.

Ultimately, LASSORs may find homes in desktop computers where they could enable superconducting circuits to operate hundreds of times faster than today's conventional electronics.

Funding for the research was provided by the Department of Energy's Office of Nonproliferation and International Security.

The Los Alamos Team has patented the optical refrigeration technology and is seeking industrial partners while it continues to improve the system. More information can be found at http://labs3.lanl.gov/cooling.html on the World Wide Web.

Members of the multidisciplinary research team include Epstein, Brad Edwards and Al Gibbs, all of NIS-2; Timothy Gosnell and Carl Mungan of Condensed Matter and Thermal Physics (MST-10); and former Los Alamos scientist Melvin Buchwald.

"This is the Laboratory working the way it should," Epstein said. "We had a technical problem and quickly pulled together a talented and enthusiastic team of astrophysicists, solid-state physicists and a physical chemist."

—Jim Danneskiold

Lab to lead DOE effort …

continued from Page 1

production facility must be operating within the next 10 to 15 years to sustain the remaining weapons and maintain the U.S. nuclear deterrent.

APT works by producing protons in a linear accelerator. Moving at 95 percent of the speed of light, these protons strike tungsten targets, generating neutrons through a process known as spallation. These neutrons are slowed by moderation in water and captured by the stable isotope helium-3 to produce tritium.

Los Alamos will serve as lead laboratory for APT. Scientists and engineers from other national labs and industry will work at the Laboratory to design and develop the APT components needed for construction of the roughly $2 billion facility at Savannah River.

The APT system will use technology proven over decades of research, development and operation at Los Alamos and other national laboratories, Lisowski said.

The DOE has requested $50 million in fiscal year 1996 from Congress for the dual-track effort. About $41 million of that allocation is planned for work at the Lab, with about half of that spent on equipment. This will include funds for continued experimental work at the Los Alamos Neutron Science Center and equipment for construction of the Low-Energy Demonstration Accelerator, which will serve as a prototype for the injector and other components of the final APT system.

—Jim Danneskiold

Obituary

William Sidney Heath

William Sidney Heath, 75, died Oct. 2 in Los Alamos. Heath worked at the Laboratory as a chemical engineer from 1951 until he retired in 1984. He is survived by his wife, Virginia "Judy" of Los Alamos; daughters Deborah Heath of Santa Rosa, Calif., and DyAnne Short of Los Alamos; stepdaughter Sherry Shantasi of Santa Fe; son-in-law Thomas Short of Los Alamos; and two grandchildren.

The Bulletin Board

Notices must be received by noon Monday, Oct. 16, for publication in the Oct. 20 Newsbulletin. Send notices to Mail Stop C318, via fax to 5-5552 or to *newsbulletin@lanl.gov* via electronic mail. If you miss the deadline, we can put your message on UPDATE. Call UPDATE at 5-7778 before noon Monday through Friday. For Newsbulletin information, call 7-6103.

Just-in-time Apple vendor has new telephone numbers

Holman's, the Laboratory's just-in-time Apple vendor, recently moved to a new location at 6201 Jefferson St. in Albuquerque. The new telephone numbers are 343-3510 for Owen Smith, 343-3552 for Ann Stout and Amy Ann Stewart, and 343-0007 for the main switchboard.

Ride sharing

• **Driver/rider needed** for nonsmoking car pool from Albuquerque to Los Alamos. Hours: 7 a.m. to 3:30 p.m. Call Karl at 5-5518, Grant at 5-3212 or Allen at 5-1793.

• **Riders needed** for nonsmoking van pools from Albuquerque, Rio Rancho and Bernalillo. Hours: 7:30 a.m. to 4 p.m. (10-hour work day van pool available now). Call David Griego at 877-2360 or 5-8152.

• **Riders needed** for nonsmoking van pool from Española to TA-3, -59 and Pueblo Complex. Hours: 7:30 a.m. to 4 p.m. Call Rose at 7-6111.

• **Riders needed** for nonsmoking van pool from La Puebla, Arroyo Seco and Española (Union Hall) to TA-3 and sites along Pajarito Road. Hours: 7:30 a.m. to 4:30 p.m. Call Tony at 104-2141 (pager) or Pearl at 7-7577.

• **Driver/rider needed** for nonsmoking car pool from Rio Rancho/Albuquerque west side to Los Alamos. Hours: 7:30 a.m. to 4 p.m. Call David at 7-3911, Lenny at 7-4099 or Maureen at 5-3308.

• **Three riders needed** for nonsmoking van pool from Velarde and Española (Union Hall) to TA-3. Hours: 7 a.m. to 4 p.m. Call Richard Gonzales at 7-6111 or 104-7500 (pager).

• **Full-time daily airplane commuter needed** from Albuquerque to Los Alamos. Leave Coronado at 6 a.m. and Los Alamos at 4 p.m. Contact Ed at 5-0038 or *ewhitted@lanl.gov* by electronic mail or Hugh at 7-3272 or *hkimerly@lanl.gov* by electronic mail.

• **Riders needed** for a nonsmoking van pool from Albuquerque (Montgomery at San Mateo) to town site, TA-3 and down Pajarito Road. Hours: 7 a.m. to 4 p.m. Call Roger at 7-1281 or *rbyrd@lanl.gov* by electronic mail.

• **Riders needed** for seven-passenger, nonsmoking van pool from Santa Fe (Osco Drug parking lot) to TA-3 and town sites. Hours: 7 a.m. to 4 p.m. (leave Osco Drug at 6:10 a.m. and TA-3 at 4 p.m.). Call dede at 5-2349 or Charlie at 7-9706.

• **Riders needed** for nonsmoking van pool from El Rito (pickups along the way) and Española (Union Hall) to TA-3, TA-55 and town sites. Hours: 8 a.m. to 4:30 p.m. Call Porfirio at 7-5177.

Trading post

Chemical Science and Technology (CST) Division is looking for someone to take over the lease of a **Xerox 5334ZTAST copier,** serial No. 0U2030918. The equipment was installed May 31, 1994, and the contract continues through May 31, 1997. The monthly lease payment is $297.20, which includes all maintenance and copy usage. For more information about the copier, call Lulu Thompson at 7-1370. For contract or lease information, call Dana Butters or Procurement (BUS-5) at 7-3695.

Free calibration service for voltmeters and multimeters

Standards and Calibration (ESH-9) can provide free calibrations to Laboratory organizations and Johnson Controls World Services Inc. ESH-9 maintains electrical, dimensional and physical standards traceable to the National Institute of Standards and Technology.

Following are the standards maintained:

• **Physical —** pressure, torque, mass and balances, temperature, gas flow

• **Dimensional —** length, angle, roundness, surface finish, force

• **Electrical** — oscilloscopes, AC/DC, frequency and time, microwave, high voltage.

The group provides pickup and delivery service. For more information, call 7-4864.

Job openings

The Laboratory's online vacancy system has posted the following additional job openings since the last Newsbulletin. You may access the full job text content, as well as general application procedures, from the Human Resources (HR) Division home page at *http://www.hr.lanl.gov* on the World Wide Web.

Public workstations are available in the HR lobby reception area in the Otowi Building for those who may be unfamiliar with computer networking. Applicants, including those with Teletype Devices for the Deaf (TDD), should direct further questions to the HR Staffing Group at (505) 667-8622, or to the phone number given with each job listing below.

OS organizational support

(951213) INTERNAL ONLY, GRP OFC ADMIN, OS 05, AOT-5, ($21,144 - $36,816/yr.), Clearance: L (Position will be cleared to this level), Number of Openings: 1, (Regular Full-Time), call 5-0378.

(951208) INTERNAL ONLY, DIV LEV OFC ADMIN, OS 06, LER/MLNSC, ($25,416 - $44,136/yr.), Clearance: Q (Position will be cleared to this level), Number of Openings: 1, (Regular Full-Time), call 7-7177.

(951217) INTERNAL ONLY, EXEC OFC ADMIN-S, OS 07, NMT, ($32,232 - $54,096/yr.), Clearance: Q (Position will be cleared to this level), Number of Openings: 1, (Regular Full-Time), call 7-9403.

SSM specialist staff member

(951191) INTERNAL ONLY, ADMIN GEN 2, SSM 01, GOVERN REL, ($32,232 - $54,096/yr.), Clearance: L (Position will be cleared to this level), Number of Openings: 1, (Regular Full-Time), call 7-3905.

TSM technical staff member

(951212) INTERNAL ONLY, STAFF MEMBER, TSM, XHM, Clearance: Q (Position will be cleared to this level), Number of Openings: 1, (Regular Full-Time), call 7-4510.

MGT management

(951187) INTERNAL/EXTERNAL, GROUP LEADER, TSM MGT, CST-12, Clearance: Q (Position will be cleared to this level), Number of Openings: 1, (Regular Full-Time), call 5-6466.

Industry representatives

Vendor demonstrations on Laboratory property must be scheduled through the Vendor Relations Office, 7-4410. Unless otherwise noted, presentations are held in the Otowi Building lower-level lobby (TA-3, SM-261). Small businesses and large businesses are identified with the letters SB or LB, respectively. Vendor booth phone numbers are Booth 1, 7-5094; Booth 2, 7-5393; Booth 3, 7-4208; Booth 4, 7-5024; Booth 5, 7-1085; Booth 6, 7-6573; Booth 7, 7-5299.

Monday, Oct. 16

Morning

• **Vic Myers and Associates Inc.** (SB) Booth 3, representing instruments, control, data acquisition, computer and telemetry companies

• **Grumman Technical Services** (LB) Booth 4, provides full range technical, scientific and administrative support services

Afternoon

• **University of Phoenix** (LB) Booth 7, master's and bachelor's degrees in business management and computer information systems, courses taught in Los Alamos

Tuesday, Oct. 17

All day

• **Butler Service Group** (LB) Booth 6, national and international technical contract service

Morning

• **RRA Inc.,** formerly Ray Rashkin and Associates, (LB) Booth 1, technical manpower with full-benefit coverage to employees and their families

Afternoon

• **NilFisk of America,** (SB) Booth 2, high-filtration vacuum cleaner applications, HEPA, dustless hand tools

• **IMEC** (SB) Booth 3, VHF, UHF, microwave, millimeterwave, high-voltage, fiber optics

• **Otowi Station Science Museum Bookstore** (SB) Booth 4, scientific, technical and professional books, Laboratory vendor agreement

Wednesday, Oct. 18

All day

• **Harrison International** (SB) Booth 7, memory modules, fiber-optic cables/devices, FDDI/HUBS, CAMAC/FASTBUS, electronics, new just-in-time catalog

Morning

• **Assaigai Analytical** (SB) Booth 1, environmental sampling and testing — soil, water, air and hazardous waste

• **NilFisk of America,** Booth 2, see Oct. 17 listing

• **Albuquerque Valve and Fitting** (SB) Booth 3, stocking distributor for Swagelok, Cajon, Nupro, Whitey and Sno-Trik products

Afternoon

• **Holman's** (SB) Booth 1, available to discuss any Apple product/just-in-time issues

• **Weirich and Associates** (SB) Booth 5, contract engineering and technical services firm

Thursday, Oct. 19

All day

• **University of Phoenix** (LB) Booth 5, see Oct. 16 listing

• **Butler Service Group** (LB) Booth 6, see Oct. 17 listing

• **Scientific Sales** (SB) Booth 7, vacuum equipment just-in-time contractor, MDC, alcatel, CTI, MKS, etc.

Morning

• **RRA Inc.,** formerly Ray Rashkin and Associates, (LB) Booth 1, see Oct. 17 listing

• **Vic Myers and Associates Inc.** (SB) Booth 3, see Oct. 17 listing

• **General Physics** (LB) Booth 4, full-service engineering and technical services company

Afternoon

• **Orange Street Inn** (SB) Booth 2, short video, free food and samples, photo brochures

• **Grumman Technical Services** (LB) Booth 4, see Oct. 16 listing

Calendar

A week of events in and around the Lab

Notices must be received by noon Monday, Oct. 16, for publication in the Oct. 20 Newsbulletin. Send notices to Mail Stop C318, via fax to 5-5552 or to *newsbulletin@lanl.gov* via electronic mail. If you miss the deadline, we can put your message on UPDATE. Call UPDATE at 5-7778 before noon Monday through Friday. For Newsbulletin information, call 7-6103.

Sunday, Oct. 15

• **Zia Spacemodelers** (a Laboratory-sanctioned organization) **Sport Launch:** 1:30 p.m., eight miles north of Española on Route 68. Turn right immediately before mile marker 8 and drive one-half mile in. For more information, call Thomas Beach at 672-0249.

Monday, Oct. 16

• **American Society of Safety Engineers/System Safety Society Meeting:** *"Failure Mode State Variable Model for Double Contingencies,"* noon, Otowi Cafeteria Side Dining Room C.

Tuesday, Oct. 17

• **Chemical Physics Lunch Seminar:** *"The Solution Dynamics and Structure of Methanol in High-density Carbon Dioxide as Determined by Carbon 13 Nuclear Magnetic Resonance,"* Craig Taylor, CST-12, 12:05 p.m., Otowi Cafeteria Side Dining Room C.

Wednesday, Oct. 18

• **Superconductivity Technology Center (STC) Seminar:** *"Physical Vapor Deposition — A New Approach to High Tc Superconducting Tape,"* Stephen Foltyn, STC, 10 a.m., TA-3, SM-1698, Materials Science Laboratory Auditorium.

• **Center for Nonlinear Studies (CNLS) Tea Talk:** *"Wetting Fronts in One-dimensional Periodically Layered Soils,"* George Fennemore, University of Arizona, 3 p.m., TA-3, SM-1690, CNLS Conference Rooms 102 and 104.

Thursday, Oct. 19

• **Virtual Reality Laboratory and Visualization Laboratory Open House:** 9 a.m. to 4 p.m., TA-3, SM-132, rooms 248 and 249A (a map is available at http://www-c8.lanl.gov/graphics_vis/vis_video_lab/map.html on the Internet).

• **Environmental Biology (LS-7) Seminar:** *"Production of Microbial Polysaccharide from Wood Hydrolysates,"* James Nakas, State University of New York, Syracuse, 9:30 a.m., Health Research Laboratory Auditorium.

• **Center for Nonlinear Studies (CNLS) Seminar:** *"Phase Transitions and Bifurcations in Equilibrium and Nonequilibrium Systems,"* Joel Lebowitz, Rutgers University, 10 a.m., TA-3, SM-1690, CNLS Conference Rooms 102 and 104.

• **Los Alamos Bisexual, Gay, and Lesbian Alliance** (a Laboratory-sanctioned organization) **Meeting:** noon, Mesa Public Library. For more information, call 661-5238.

• **Overeaters Anonymous Meeting** (sponsored by Occupational Medicine, ESH-2, and the Employee Assistance Program): 12:10 p.m., TA-3, Building 409, Occupational Medicine Conference Room 204.

Friday, Oct. 20

• **Life Sciences (LS) Division Staff Member Seminar Series:** *"An Integrated Physical Map of Chromosome 16,"* Norman Doggett, CHGS, 8:30 a.m., Health Research Laboratory Auditorium.

The weeks ahead

• **Nuclear Materials Technology Division Science and Technology Assessment:** *"The Plutonium Roadmap,"* Nov. 13 through 15, J. Robert Oppenheimer Study Center and TA-55. For more information, call Sandy Roybal at 5-7667 or K.C. Kim at 7-7753.

Technology Transfer Overview

This course presents an overview of technology transfer processes, issues and mechanisms and informs participants of technology transfer resources within the Laboratory.

Topics include historical perspectives; Department of Energy/prime contract policy issues; current programs; comparison with other DOE labs; how reorganization may affect the future of tech transfer; working with industry, including understanding customer perspective; and technical transfer tools and mechanisms, including memorandums of intent, funds-in agreements/contract research, cooperative research and development agreements and user facility agreements.

There are several openings for the upcoming Technology Transfer Overview class scheduled from 8 a.m. to 12:30 p.m. Thursday at TA-0, Building 1325 (building west of the Los Alamos Inn), second floor, Pecos Room. To register, send in an Application for Enrollment, Form No. 1119, to the Training and Development registrar at Mail Stop J977.

Walk to Your Heart's Content

Walk 1995

As of Oct. 6 with 90 percent of the Walking Month coordinators reporting hours for their groups, the Laboratory workforce walked 36,505 hours during September. More than 1,000 employees participated.

The Wellness Center will be ordering awards by Oct. 16. The awards will be available for Walking Month coordinators and individuals to pick up at the Wellness Center by Nov. 1.

Postdoctoral Committee meets Dec. 13 to consider research fellowships and postdoctoral appointments

The Postdoctoral Committee will meet Dec. 13 to consider candidates for J. Robert Oppenheimer Research Fellowships and postdoctoral appointments. Candidates approved at this meeting must report to work by September 1996.

All proposals must have the required documentation in the following order: a cover memo; a nominating memo from the sponsor (limited to one page); a typed research proposal written by the candidate (limited to two pages for fellowships and one page for postdoctoral research appointments); three external letters of recommendation (four letters for fellowships); undergraduate and graduate transcripts (if degree has been completed, transcripts must reflect degree date); a résumé that includes a list of publications; and a Personal Information Form (a voluntary form that provides the opportunity to gather demographic data).

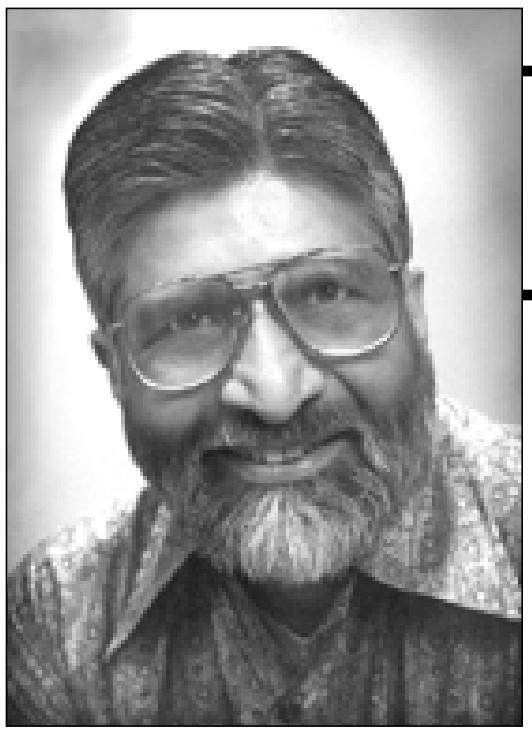
Sponsors or divisions must submit their proposals for review and approval by their assigned committee member by Nov. 13. Proposals will not be accepted without the assigned or alternate committee member signature.

An original proposal for each candidate, plus six double-sided copies that do not include the Personal Information Form, must be delivered to the Human Resources (HR) Division Staffing/Postdoctoral Office on the main floor of the Otowi Building by 5 p.m. Nov. 16. The mail stop is P290.

A complete copy of the memo sent to master management can be accessed under "Official Documents" from the Laboratory home page at http://www.lanl.gov:8000/memos/MasterManagement on the World Wide Web. For more information, contact Mary Anne With at 7-0872.

The final word

Laboratory employee volunteers his time to local United Way chapter



Mahavir Jain

'I felt the United Way was the best way to get involved in the communities, because it supports so many agencies that do all kinds of good things for Los Alamos, Española and Santa Fe.'

To many people throughout northern New Mexico, the name Mahavir Jain has become synonymous with the United Way. The 19-year Lab employee from Classification (FSS-16) has been involved as a volunteer with the northern New Mexico chapter 11 years.

Jain is a member of the United Way board of directors, currently serving as the financial secretary. During his tenure, he has been involved at one time or another with most of the committees that comprise the board, including the budget, evaluations and admissions/grants committees.

Jain also has worked on setting up within the board a new committee designed to meet the specific needs of the Española Valley.

"I felt the United Way was the best way to get involved in the communities, because it supports so many agencies that do all kinds of good things for Los Alamos, Española and Santa Fe," said Jain, who added that it was his son's godmother who first got him involved in the organization.

The physicist's community involvement activities don't begin and end with the United Way, however.

The Los Alamos Heart Council approached Jain in 1984 and asked for assistance in helping the organization break away from the New Mexico Heart Association, which received funding from the United Way.

"They wanted to make it a local organization so they could be more responsive to the local communities," Jain explained. "At the same time, they were worried that doing so would prevent them from receiving United Way funding."

Jain helped negotiate an agreement to allow the heart council to become independent and continue to receive United Way funding. He then served on the council's board of directors for seven years.

In 1986 Jain helped local cardiologist Carolyn Linnebur and others, in association with the Los Alamos Heart Council, to create the now-annual Los Alamos Health Fair. "At the fair, people can receive subsidized health care for such things as cancer screening, blood and diabetes testing and flu shots," said Jain.

His community service doesn't stop there, either. "A couple of years ago I decided to try to do something about domestic violence, because I personally knew a few people who were victims," he said.

He got together with Los Alamos Family Council clinical director Mike Duxler, Sarah Teasdale of the Council on Alcoholism and Connie Trujillo of Esparanza (a shelter for battered women) and initiated the development of a treatment and counseling program for domestic violence offenders.

They later formed a county committee consisting of judges; police officers, including Los Alamos Deputy Police Chief Greg Talley; and other service groups, which sought funding for the program from the Los Alamos County Council the next two years. "The Council finally provided $50,000 a couple of months ago. The program is being administered through the family council," Jain said.

In addition, Jain is actively involved with Boy Scouts Troop 22 in Los Alamos, serving as the deputy scout advancement chair. He also works with an organization called Services and Aid to the Relief of the Poor Inc. and is a booster for the Los Alamos High School Band.

For now, Jain is focusing his efforts on the ongoing United Way fund-raising campaign, along with campaign co-chair Darlene Lee of the Business Operations (BUS) Division and many other Lab volunteers. The drive officially began Oct. 1. He remains optimistic that the Lab-sanctioned organization will meet its goal of $500,000, despite the recently announced reduction-in-force.

"With the large number of layoffs," he reasoned, "there's now even more need for human services. Lab employees always have been very generous and good neighbors to the communities, and I sincerely appreciate those volunteers whose work often goes unnoticed."

—Ternel Martinez

At press time, the United Way had collected $13,238. If you haven't turned in your United Way envelopes yet, please do so as soon as possible.